Exhibit 12

<u>Illustrative Claim Chart for U.S. Patent No. 9,651,320</u>

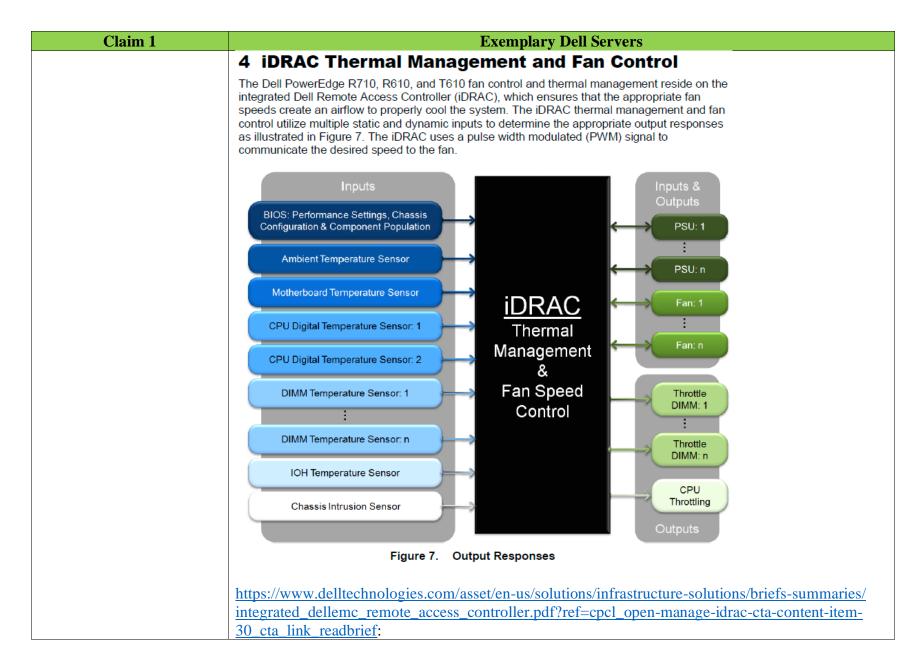
Claim 1	Exemplary Dell Servers
[Preamble] ICT	The Exemplary Dell Servers are ICT (Information and Communication Technology) equipment
(Information and	having an electronic component.
Communication	
Technology) equipment	See, e.g., https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-
having an electronic	poweredge-11g-thermal-design-en.pdf at 4:
component, the ICT	
equipment comprising:	

Claim 1 **Exemplary Dell Servers** This guide provides insight into the cooling design and thermal management of the PowerEdge R710, R610, and T610 monolithic servers. Please visit www.DELL.com for a more comprehensive overview of these servers. Table 1. R710, R610, and T610 Servers Overview Dell PowerEdge R710 R610 T610 Front View 1U 2U 5U Height Processors Intel® Xeon® 5500 Number of CPU sockets Dual DDR3 **Memory Type Memory Slots** 12 18 12 **PCI Slots** 2 5 6 - 3.5" Large form factor 8 - 3.5" Large form factor Hard drives (Hot Plug) 6 - 2.5" Small form factor 8 - 2.5" Small form factor 8 - 2.5" Small form factor 5 - Dual CPUs 6 - Dual CPUs 2 - non-redundant Number of Fans 4 - Single CPU 5 - Single CPU 4 - redundant (Hot Plug) Power Supplies (Hot Plug) n+1 redundancy https://i.dell.com/sites/csdocuments/Product_Docs/en/us/ dell_emc_poweredge_rack_quick_compare_table.pdf:

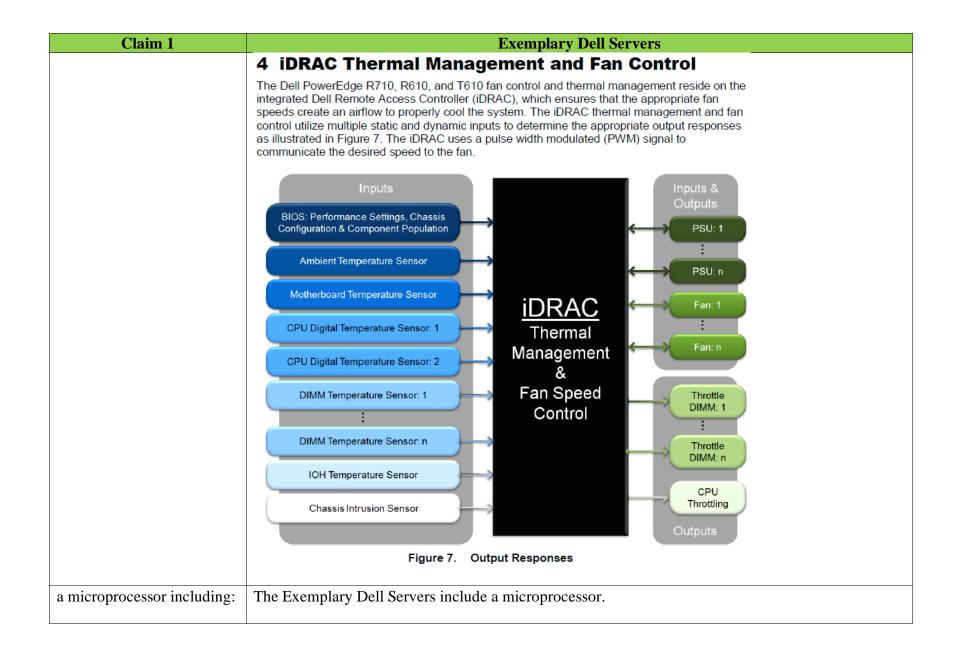
Claim 1		Exemplary Dell Servers														
	DØLL EI	D&LLEMC PowerEdge Rack Servers Quick Comparison Table														
	servers to delive	Dell EMC PowerEdge rack servers help you build a modern infrastructure that minimizes IT challenges and drives business success. Choose from a complete portfolio of 1-2-and-4 socket servers to deliver high core density for your traditional applications, virtualization and cloud-native workloads. Enhanced memory speeds, faster NVMe storage options1 and BIOS tuning a you to match performance to your workload for ultimate efficiency.														
	PowerEdge Rack Servers	PowerEdge R6525 R7515 R6515 R6515			R940	R940xa	R840	R740xd	R740	R740xd2	R640	R540	R440	R340	R240	
	Key attributes	Dense virtualization	Powerful performance and scalability	High density compute	Powerful performance	Extreme acceleration	Turbocharge data analytics	Scalable storage performance	Optimal application performance	Enterprise content server	Performance and density	Balanced and adaptable	Scale-out computing	Accelerate business growth	Compute made simple	
	Target workloads	HPC, Dense VDI and Virtualization	SDS, Virtualization and Data Analytics	Virtualization, HCI and NFV	In-memory databases	GPU database acceleration and machine learning	Data- intensive workloads, HFT and dense virtualization	SDS, service providers, and big data servers	VDI and cloud workloads	Media streaming and SDS	Dense scale-out data center computing and storage	Mail messaging and virtualization	HPC, web tech and scale-out infrastructure	ROBO productivity and data- intensive applications	Small business and service provider workloads	
	Type of processor	2 x 2 nd Gen EPYC [™] Processors; up to 64 cores per Processor	AMD EPYC up to 6	eneration ™ Processor; 64 cores ocessor	4 x 2" Generation Intel [®] Xeon [®] Scalable processors					2 x 2 ^{ss} General Scalable	tion Intel® Xeon® processors			Intel Core i3 [®] .	1 x Intel Xeon E-2200, Intel Core i3", Intel Pentium", or Intel Celeron" processor	
	Memory (DDR4 DIMM slots & max)	32 (4TB)	16 (2TB)		48 (15.36TB)		24 (7	.68TB)	16 (1TB)	24 (7.68TB)	16 (1TB)		4 (64GB)		
	Disk drives up to:	8 x 2.5" 4 x 3.5"	12 x 3.5" 8 x 3.5"	8 x 2.5* 4 x 3.5*	24 x 2.5"	32 x 2.5"	26 x 2.5"	32 x 2.5" or 18 x 3.5"	16 x 2.5" or 8 x 3.5"	26 x 3.5" or 16 x 3.5" + 10 x 2.5" ²	12 x 2.5" or 4 x 3.5"	14 x 3.5"	10 x 2.5" or 4 x 3.5"	8 x 2.5" or 4 x 3.5"	4 x 2.5"2 or 4 x 3.5"	
	NVMe drives up to:	12	24	10	12	4	2	24	N	I/A	10	N/A	4	1	VA.	
	Gen4 PCIe slots up to:	3	2	1	N/A	N/A	N/A	N	I/A	N/A	N/A N/A N/A		l/A			
	Gen3 PCIe slots up to:	N/A	2	1	13	12	6	8		5	3	5 2		2		
	Accelerator support up to:	2 x SW	4 x SW; 1 x FPGA	2 x SW	N/A	4 x DW GPUs or 4 x DW or 8 x SW FPGAs	2 x DW GPUs or 2 x SW or DW FPGAs	3 x DW or 6 x SW GPUs or 3 x DW or 4 x SW FPGAs		N/A	1 x SW GPU or 1 x SW FPGA		,	N/A		
	Rack height (U)	1	2	1	3	4			2		1	2	1		1	
	Integrated security:	TPM 1.2/2.0 optional, Digitally Signed Firmware, Chassis Intrusion Alert and Secure Boot being standard security on all Integrated security: Integrated security features such as Silicon Root of Trust, System Lockdown and System Erase come standard on all re-								inty on all racks. ird on all racks.						
cooling fan;	The Exem	plary l	Dell Se	ervers	includ	le a co	oling f	an.								
	See, e.g., <u>h</u>	ttps://	i.dell.c	om/si	tes/csd	locum	ents/Sl	hared-	Conte	nt_data	a-Shee	ets_Do	<u>cum</u> er	nts/en/	server-	
	poweredge	_														
	<u> </u>				<i>a</i>											

Claim 1 **Exemplary Dell Servers** This guide provides insight into the cooling design and thermal management of the PowerEdge R710, R610, and T610 monolithic servers. Please visit www.DELL.com for a more comprehensive overview of these servers. Table 1. R710, R610, and T610 Servers Overview Dell PowerEdge R610 R710 T610 Front View **1U** 5U Height 2U Processors Intel® Xeon® 5500 Dual Number of CPU sockets DDR3 Memory Type **Memory Slots** 12 18 12 PCI Slots 2 4 5 6 - 3.5" Large form factor 8 - 3.5" Large form factor Hard drives (Hot Plug) 6 - 2.5" Small form factor 8 - 2.5" Small form factor 8 - 2.5" Small form factor 5 - Dual CPUs 6 - Dual CPUs 2 - non-redundant Number of Fans 4 - Single CPU 5 - Single CPU 4 - redundant (Hot Plug) Power Supplies (Hot Plug) n+1 redundancy https://infohub.delltechnologies.com/en-US/p/next-generation-poweredge-servers-thoughtfulthermal-design/: "Next-Generation Intel and AMD PowerEdge servers will support internal components with increased capabilities, such as higher CPU core counts and memory frequencies. These new features bring with them increased power consumption. Dell Technologies has refined its thermal design to optimize cooling of these enhanced hardware ingredients.... High Performance

Claim 1	Exemplary Dell Servers
	Fans – New higher performance fans have been added to increase the amount of cool air pushed through the system, targeted at higher power semiconductors (CPUs, GPUs and NVMe drives)"
	https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/es/ai/Advanced-Thermal-Control-Whitepaper.pdf: "The current generation of Dell TM PowerEdge TM servers achieves this by incorporating sophisticated thermal control, strategic component placement and isolation, airflow management, and power-efficient fans."
a first temperature sensor	The Exemplary Dell Servers include a first temperature sensor that detects a component temperature
that detects a component temperature of the	of the electronic component included in the ICT equipment.
electronic component	See, e.g., https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-
included in the ICT	poweredge-11g-thermal-design-en.pdf at 13:
equipment;	



Claim 1	Exemplary Dell Servers
	Modernize with Dell PowerEdge portfolio The integrated Dell Remote Access Controller (iDRAC) delivers advanced, agent-free local and remote server administration. The iDRAC provides a secure means to automate a multitude of management tasks. Given that iDRAC is embedded in every PowerEdge server, there's no additional software to install. Once iDRAC has been enabled, you will have a complete set of server management features at your fingertips.
a second temperature sensor that detects a temperature of an intake air; and	The Exemplary Dell Servers include a second temperature sensor that detects a temperature of an intake air. See, e.g., https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-poweredge-11g-thermal-design-en.pdf at 5:
	Cooling typically consumes a significant portion of the overall data center power budget. Because of this, some data centers are adopting higher temperature operation to enhance data center cooling efficiency. These higher ambient (server inlet or supply) temperatures enable energy reductions in the refrigeration process, whether the facility uses Computer Room Air Conditioners (CRACs) or Computer Room Air Handlers (CRAHs). Additional fan power is consumed to support the elevated ambient and is a tradeoff to the cooling power saved at the data center level. Dell has optimized the PowerEdge R610 and R710 monolithic servers for both traditional data center infrastructures (<25 °C) as well as higher ambient applications (≤28 °C).
	https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-poweredge- 11g-thermal-design-en.pdf at 13:



Claim 1 **Exemplary Dell Servers** See, e.g., https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/serverpoweredge-11g-thermal-design-en.pdf at 4: This guide provides insight into the cooling design and thermal management of the PowerEdge R710, R610, and T610 monolithic servers. Please visit www.DELL.com for a more comprehensive overview of these servers. Table 1. R710, R610, and T610 Servers Overview Dell PowerEdge R610 R710 T610 Front View 1U 2U 5U Height **Processors** Intel® Xeon® 5500 Number of CPU sockets Dual DDR3 Memory Type 12 18 12 **Memory Slots** 2 5 PCI Slots 6 - 3.5" Large form factor 8 - 3.5" Large form factor Hard drives (Hot Plug) 6 - 2.5" Small form factor 8 - 2.5" Small form factor 8 - 2.5" Small form factor

<u>https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-poweredge-11g-thermal-design-en.pdf</u> at 13:

5 - Dual CPUs

4 - Single CPU

(Hot Plug)

2 - non-redundant

4 - redundant

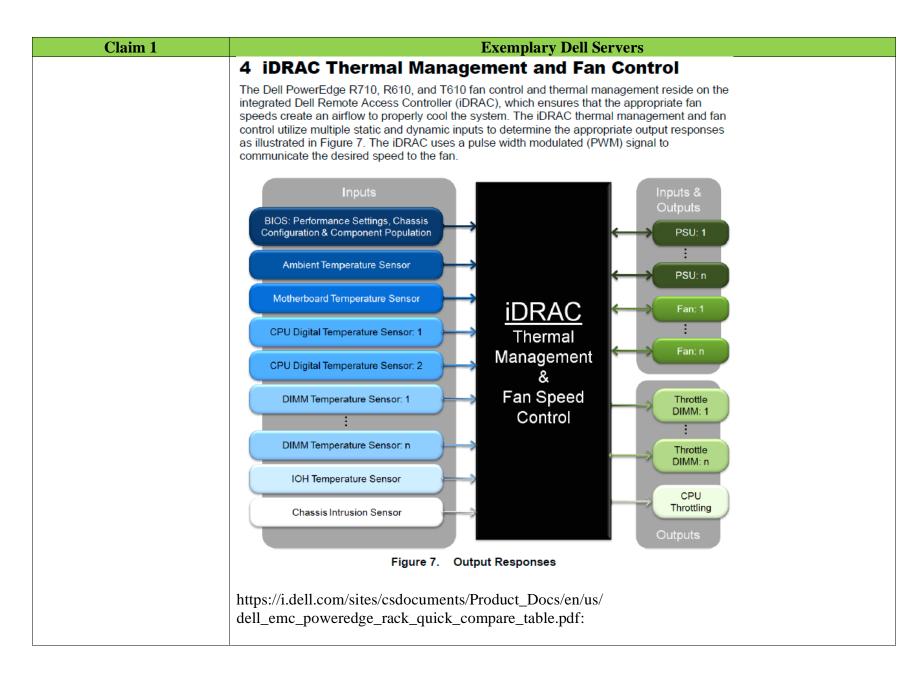
6 - Dual CPUs

5 - Single CPU

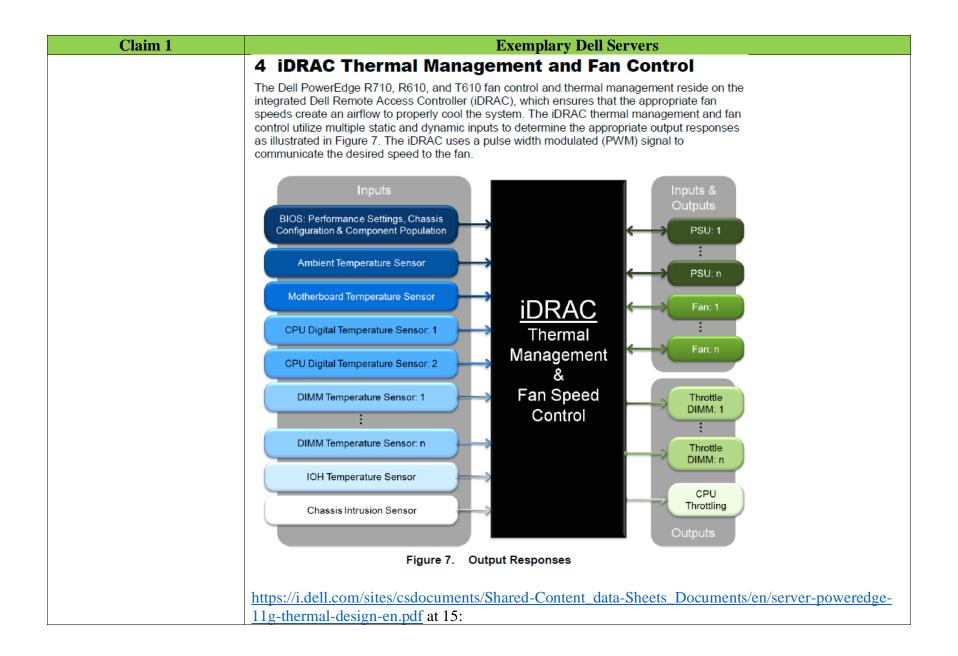
n+1 redundancy

Number of Fans

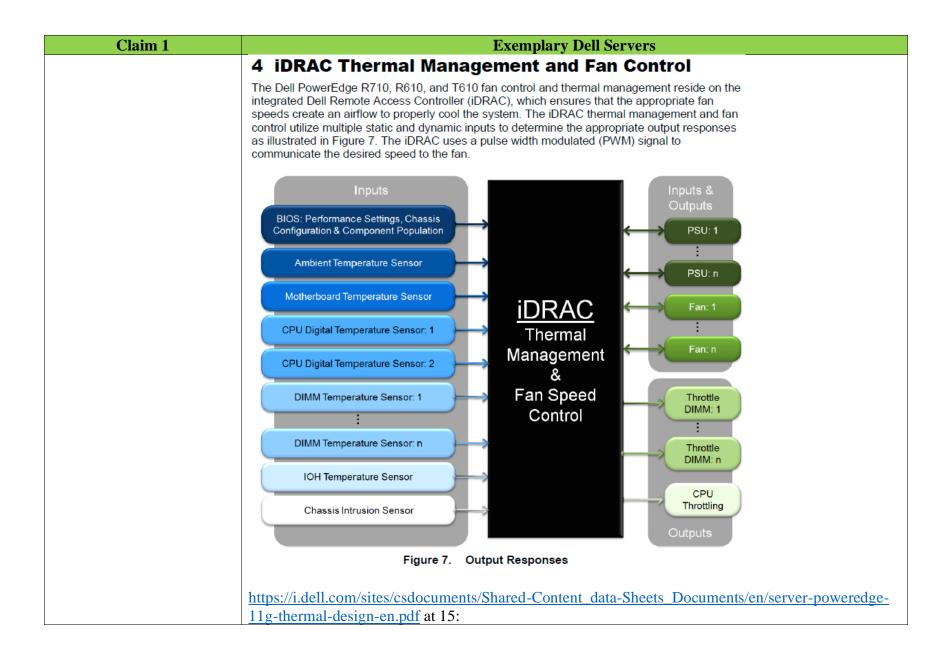
Power Supplies (Hot Plug)



Claim 1	Exemplary Dell Servers															
	D≪LL EMC PowerEdge Rack Servers Quick Comparison Table															
	Dell EMC Power servers to delive you to match pe	r high core d	ensity for you	ur traditional a	applications,											
	PowerEdge Rack Servers	R6525	R7515	R6515	R940	R940xa	R840	R740xd	R740	R740xd2	R640	R540	R440	R340	R240	
	Key attributes	Dense virtualization	Powerful performance and scalability	High density compute	Powerful performance	Extreme acceleration	Turbocharge data analytics	Scalable storage performance	Optimal application performance	Enterprise content server	Performance and density	Balanced and adaptable	Scale-out computing	Accelerate business growth	Compute made simple	
	Target workloads	HPC, Dense VDI and Virtualization	SDS, Virtualization and Data Analytics	Virtualization, HCI and NFV	In-memory databases	GPU database acceleration and machine learning	Data- intensive workloads, HFT and dense	SDS, service providers, and big data servers	VDI and cloud workloads	Media streaming and SDS	Dense scale-out data center computing and storage	Mail messaging and virtualization	HPC, web tech and scale-out infrastructure	ROBO productivity and data- intensive applications	Small business and service provider workloads	
	Type of processor	2 x 2 nd Gen EPYC TM Processors; up to 64 cores per Processor	AMD EPYC	Generation ™ Processor; 64 cores rocessor	4 x 2" Generation Intel® Xeon* Scalable processors					2 x 2 [™] Genera Scalable	on Intel [®] Xeon [®] rocessors			1 x Intel Xeon E-2200, Intel Core (3°, Intel Pentium*, or Intel Celeron* processor		
	Memory (DDR4 DIMM slots & max)	32 (4TB)	16 ((2TB)		48 (15.36TB)		24 (7.	68TB)	16 (1TB)	24 (7.68TB)	16	(1TB)	4 (4 (64GB)	
	Disk drives up to:	8 x 2.5" 4 x 3.5"	12 x 3.5" 8 x 3.5"	8 x 2.5* 4 x 3.5*	24 x 2.5"	32 x 2.5"	26 x 2.5"	32 x 2.5" or 18 x 3.5"	16 x 2.5" or 8 x 3.5"	26 x 3.5" or 16 x 3.5" + 10 x 2.5" ²	12 x 2.5" or 4 x 3.5"	14 x 3.5"	10 x 2.5" or 4 x 3.5"	8 x 2.5" or 4 x 3.5"	4 x 2.5°2 or 4 x 3.5°	
	NVMe drives up to:	12	24	10	12	4	:	24	N	l/A	10	N/A	4	N/A		
	Gen4 PCle slots up to:	3	2	1	N/A	N/A	N/A	N	I/A	N/A	N/A	N/A	N/A	N/A		
	Gen3 PCIe slots up to:	N/A	2	1	13	12 4 x DW	6		8	5	3	5	2		2	
	Accelerator support up to:	GPUs or 2 x DW 4 x SW; 1 x 2 y SW N/A 4 x DW or 4 x DW or 4 x SW GPUs or 1 x SW GPUs or 1 x SW GPU o														
	Rack height (U)	1	2	1	3 TDM 4 2/2/	4	Signed Firmus	ore Chassis late		legure Root bair	1	2	1		1	
	Integrated security: TPM 1.2/2.0 optional, Digitally Signed Firmware, Chassis Intrusion Alert and Secure Boot being standard security on all racks. Integrated security features such as Silicon Root of Trust, System Lockdown and System Erase come standard on all racks.															
a declination index value calculation unit that calculates an index value ndicating a degree of	The Exem index valu componen	e indic t basec	cating d on a	a degr detect	ree of o	declina sult of	tion o the fir	f the c st tem	ompoi peratu:	nent te re sens	mpera sor.	ture o	f the e	lectror	nic	
declination of the	See, e.g., https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-															
component temperature of	poweredge	e-11g-	therma	al-desi	gn-en.	<u>pdf</u> at	13:									
he electronic component																
based on a detection result																
of the first temperature																
sensor; and																



Claim 1	Exemplary Dell Servers
	Dell has incorporated PID control into the iDRAC for CPU cooling to optimize the thermal control. PID is an advanced control algorithm that utilizes predictive calculations based on a measured process value compared against a target value to determine the appropriate response. The iDRAC reads the temperature of the processor and the PID algorithm uses it as the process value to determine the appropriate fan response. The following sub-components of PID control work with one another to determine the optimal fan speed:
	<u>Proportional</u> control responds to the current temperature based on its relation to the target temperature. When the temperature is below the target the proportional control requests a reduction in fan speed and requests an increase in speed when the temperature exceeds the target.
	<u>Integral</u> control looks at errors between the target temperature and current temperature over time. Integral control requests fan speed changes based on how long a temperature has been above or below the target value.
	<u>Derivative</u> control looks at the increase or decrease rate in temperature to decide how to respond with fan speeds. An increased or decrease in fan speed is requested based on how fast the temperature of the processor is rising or falling independent of how close the temperature is to the target temperature.
a control unit that controls	The Exemplary Dell Servers include a control unit that controls the number of rotations of the
the number of rotations of	cooling fan based on the index value calculated by the declination index value calculation unit and
the cooling fan based on the index value calculated by	the temperature of the intake air by the second temperature sensor.
the declination index value	See, e.g., https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/server-
calculation unit and the	poweredge-11g-thermal-design-en.pdf at 13:
temperature of the intake air	
by the second temperature	
sensor.	



Claim 1	Exemplary Dell Servers
	Dell has incorporated PID control into the iDRAC for CPU cooling to optimize the thermal control. PID is an advanced control algorithm that utilizes predictive calculations based on a measured process value compared against a target value to determine the appropriate response. The iDRAC reads the temperature of the processor and the PID algorithm uses it as the process value to determine the appropriate fan response. The following sub-components of PID control work with one another to determine the optimal fan speed:
	<u>Proportional</u> control responds to the current temperature based on its relation to the target temperature. When the temperature is below the target the proportional control requests a reduction in fan speed and requests an increase in speed when the temperature exceeds the target.
	<u>Integral</u> control looks at errors between the target temperature and current temperature over time. Integral control requests fan speed changes based on how long a temperature has been above or below the target value.
	<u>Derivative</u> control looks at the increase or decrease rate in temperature to decide how to respond with fan speeds. An increased or decrease in fan speed is requested based on how fast the temperature of the processor is rising or falling independent of how close the temperature is to the target temperature.